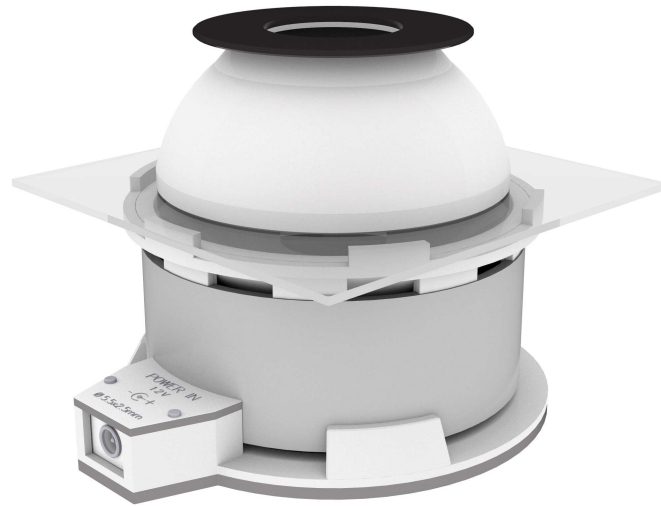


MJKZZ Europe

OGGGLAB



The RD100WB is a versatile illumination system capable of generating three different configurations by properly combining the supplied accessories:

reflectet light: characterized by soft and uniform illumination;

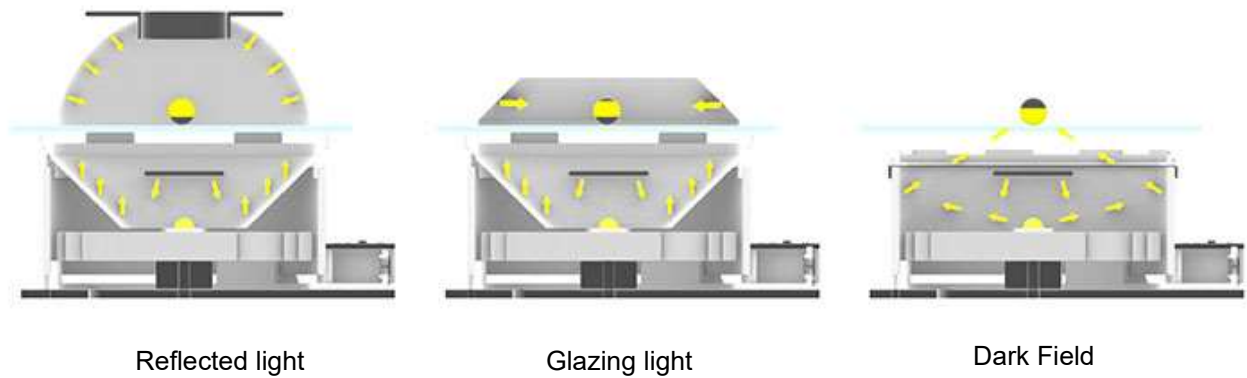
glazing light: suitable to enhance the surface roughness details;

dark field: recommended for samples with translucent parts or when the sample borders are of primary interest.

The illumination system is specifically designed to be used in macrophotography to picture small samples such as microfossils, foraminifera, small insects and minerals.

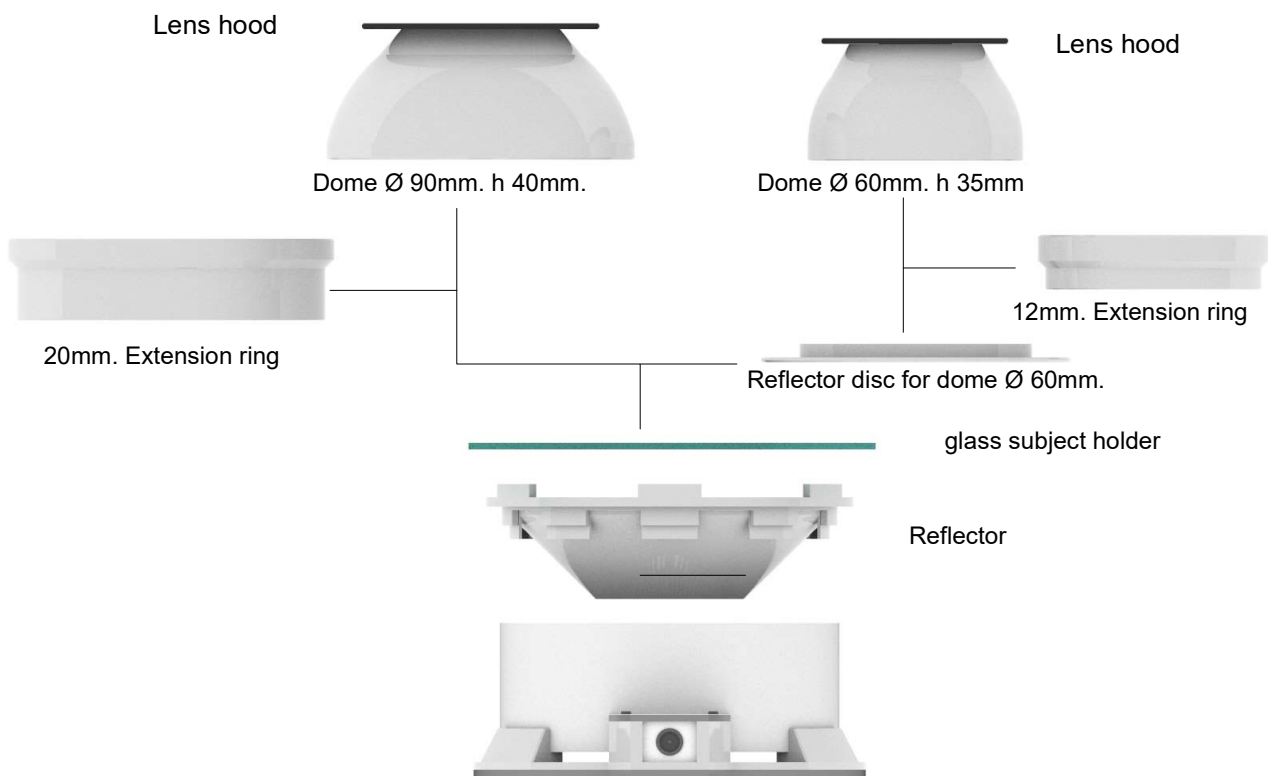
It can be used in conjunction with stereomicroscopes as long as they guarantee sufficient room between the optics and the reference plane.

CONFIGURAZIONI



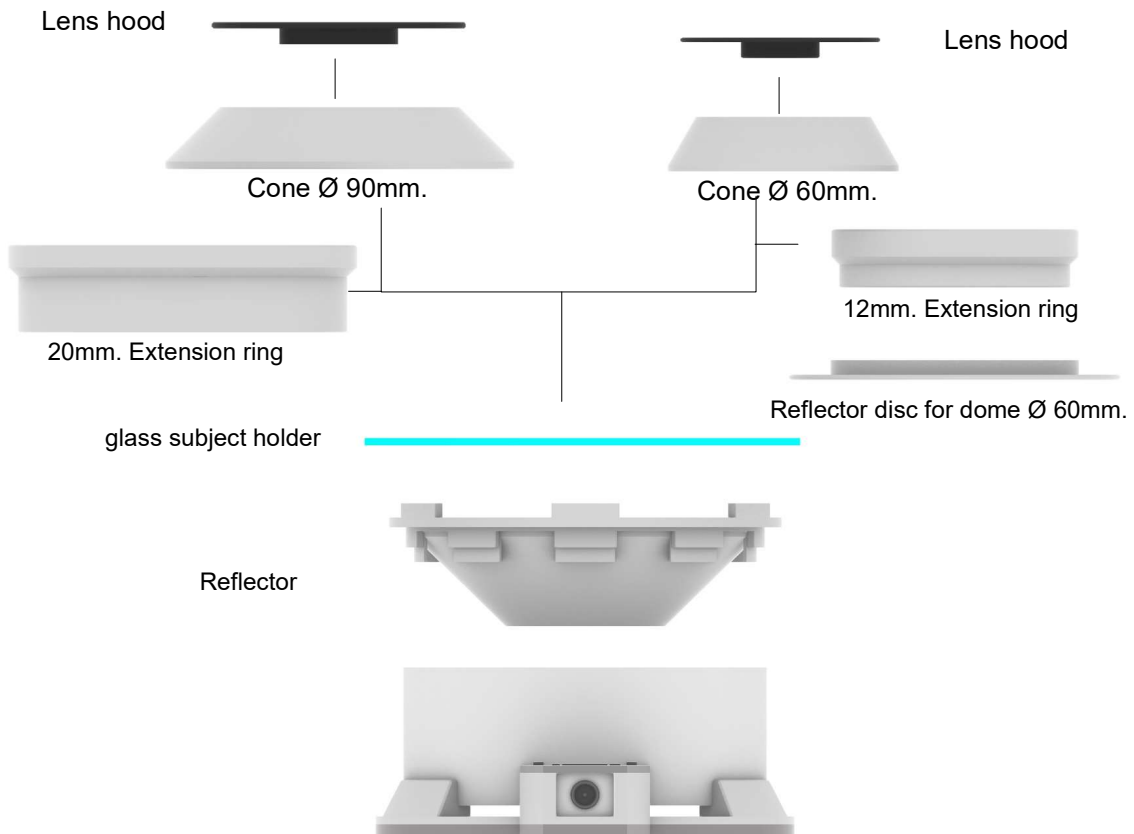
On top of the pictured configurations, additional combinations are obtainable by properly combining the available accessories.

REFLECTED LIGHT



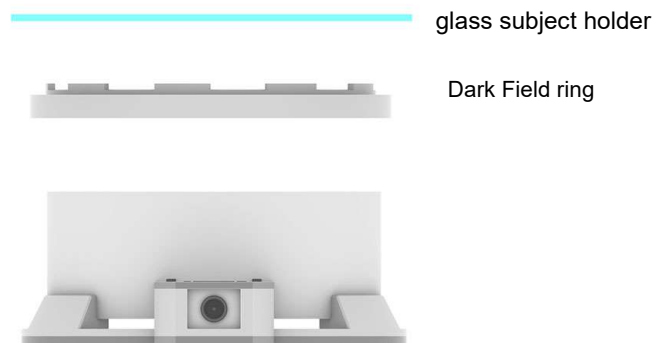
In order to support the reflected light configuration, two domes with different heights and diameters are available to maximize the compatibility with different optic systems and sample sizes. Would the sample height be significant, two extensions are provided which help to concentrate the light on the top most part of the sample. A reflector disc improves the efficiency of the dome with Ø 60mm. by minimizing the losses due to the smaller diameter

GLAZING LIGHT



The same reflector is used while in the glazing light configuration with the exception of the two domes which are substituted by two truncated cones inclusive of the extensions for tall samples. The light shield and the extensions are the same as for the reflected light configuration.

DARK FIELD

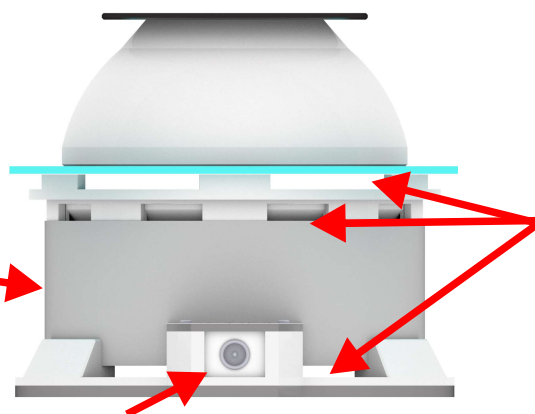


The dark field configuration is obtained by swapping the internal reflector with a reflector ring so that the sample incident light is the one internally reflected by the properly mirror polished cylinder inner part.

IMPORTANT INFORMATION

The continuous extensive usage can cause the illumination system aluminum parts to reach a relatively high temperature. Do not touch these parts to avoid burnings.

The inner black disk. Located on top of the led shouldn't be touched in order to prevent paint damage.

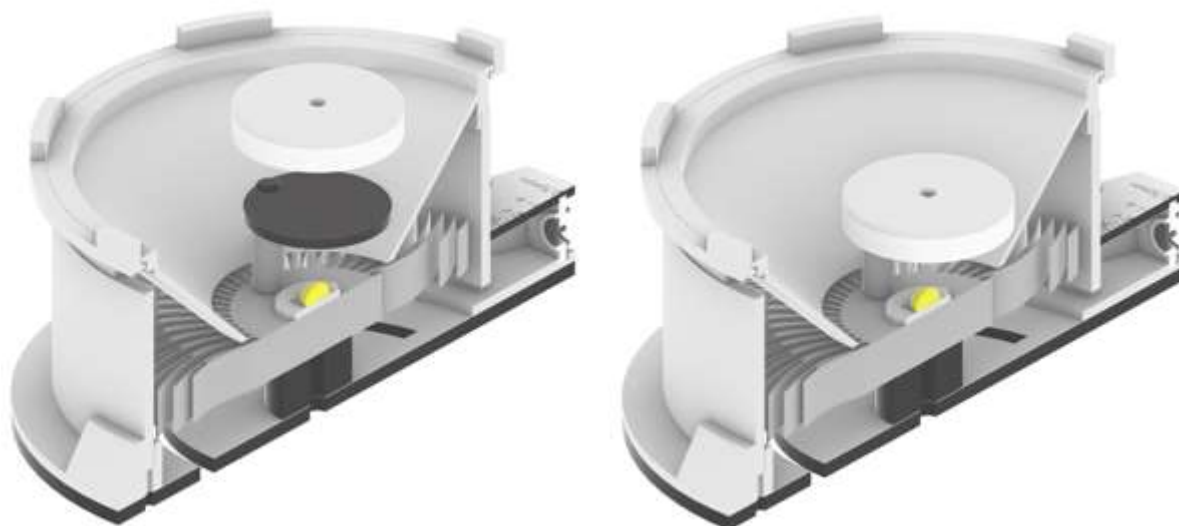


The power supply is required to have a $\varnothing 5.5 \times 2.5$ mm connector, maximum voltage of 12 VDC and output current not less than 1.5A.

The the air flow grids which enable the led cooldown should not be obstructed otherwise the illumination system will be damaged beyond repair.

For no reason the glass plan should not be placed in direct contact with the aluminum tube.

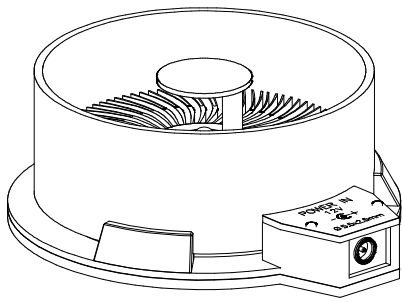
ILLUMINATION SYSTEM TO CAMERA ALIGNMENT PROCEDURE



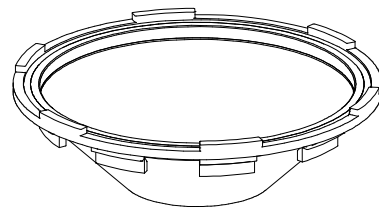
For proper operations, the illumination system is require to be aligned with the axis of the camera optics. The operation is trivial as a proper white alignment disk with a small hole is supplied. It is sufficient to position the alignment disk on top of the led black disk (make sure the illumination system is turned off and propely cooled down) and adjust its position until the small hole is centered in the camera view.

NOTE: Remember to remove the alignment disk before turning on the illumination system.

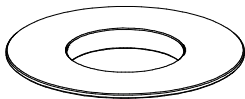
The components of the kit:



Base with led



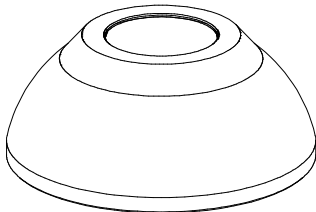
Reflector



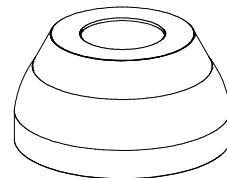
Lens hood for dome Ø 90



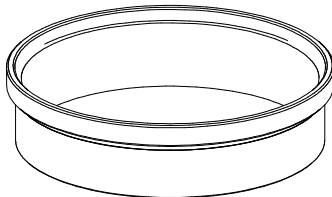
Lens hood for dome Ø 60



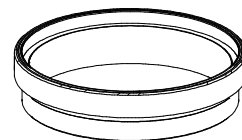
Dome Ø 90mm



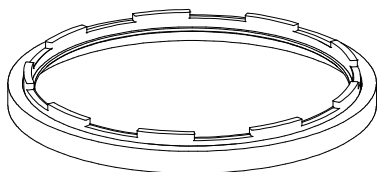
Dome Ø 60mm



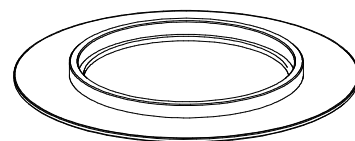
20mm. extension ring



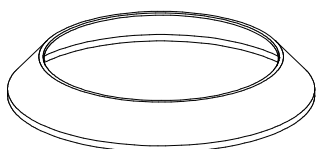
12mm extension ring



Dark Field ring



Reflector disc for dome Ø 60mm.



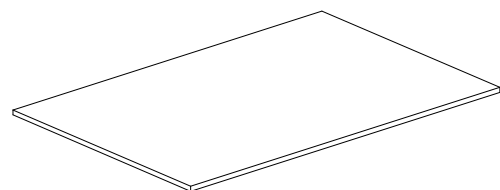
Cone Ø 90mm for grazing light



Cone Ø 60mm for grazing light

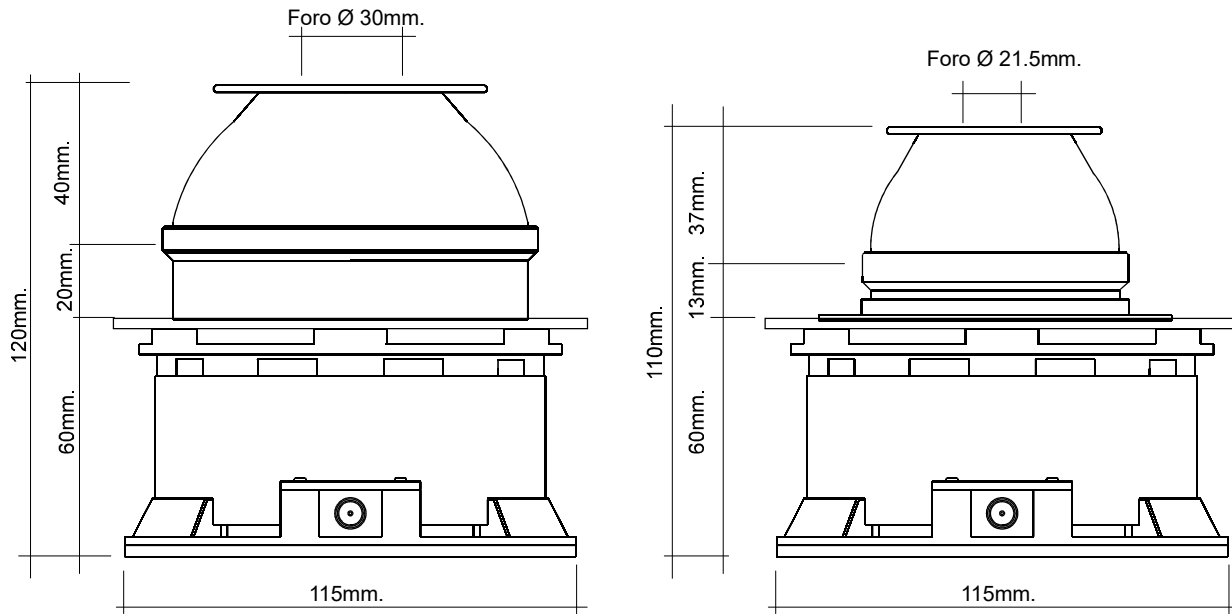


Alignment disk



Glass subject holder, 150x100mm

TECHNICAL SPECIFICATIONS



Reflected light configuration with \varnothing 90mm dome and 20mm extension ring, 370gr. weight.
Reflected light configuration with \varnothing 60mm dome and 16mm extension ring, 360gr. weight.
Dark field configuration, 300gr weight.

12 VDC and 2 A power supply, \varnothing 5.5x2.5mm coaxial connector with central positive pole, 6500K led

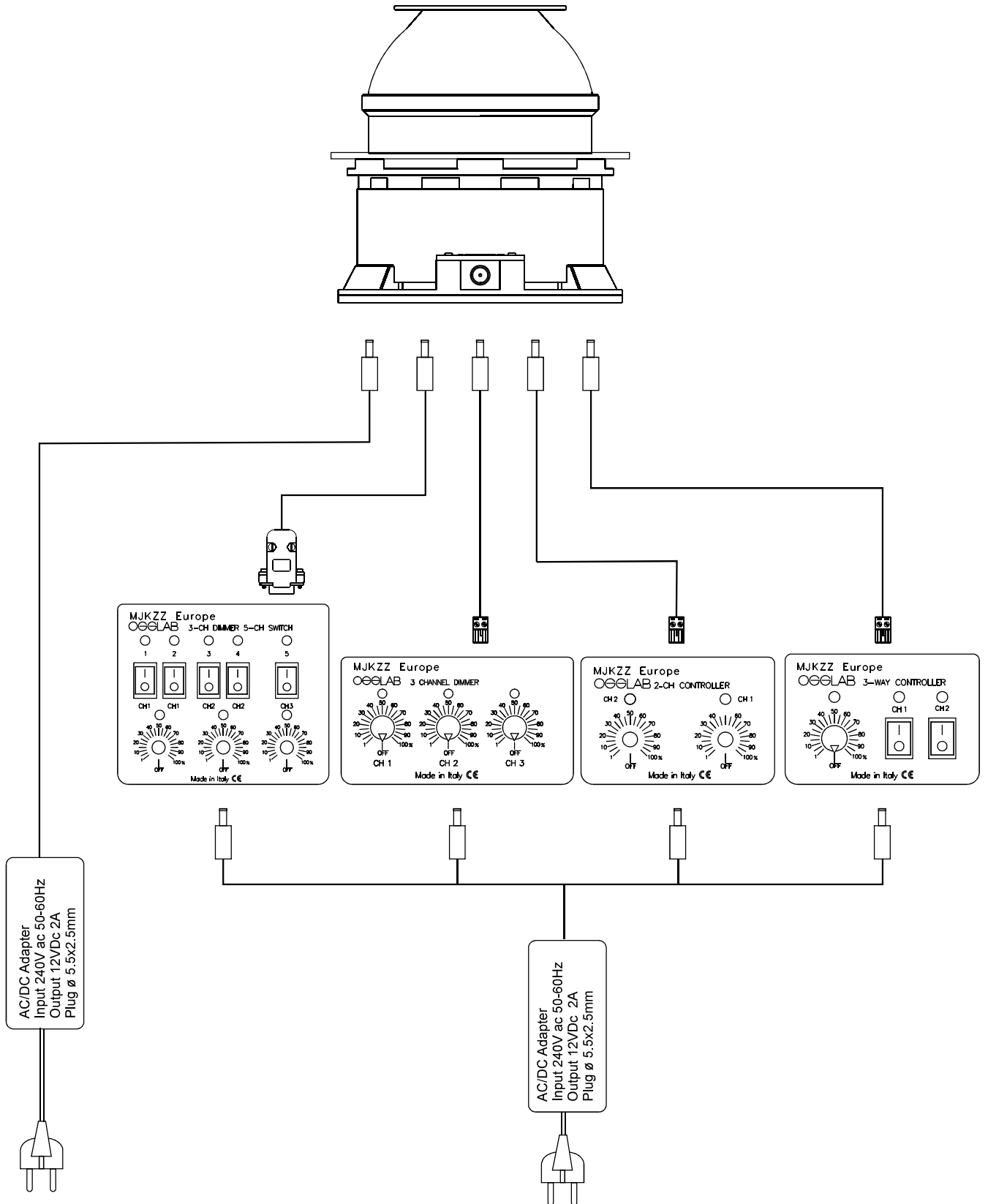
Materials and components

The main core is made of a \varnothing 100mm 2mm thick aluminum tube internally polished. The illumination source is a 10W led with a color temperature of 6500K placed on a thick aluminum heatsink and mounted on a 3mm thick HPC phenolic laminate which guarantees the proper isolation from the table top.

All the plastic parts have been built by FDM technology with strong thermal resistant PETG.

The dome and extension surfaces has been properly embossed to improve the reflection uniformity and to avoid undesires reflections from shiny samples.

POWER SUPPLY



The illumination system can be directly powered by a standard 220V-12VDc,2A adapter or, to enable a more precise light intensity control, by an OGGLab controller by using the proper cables with specific connector adapters.

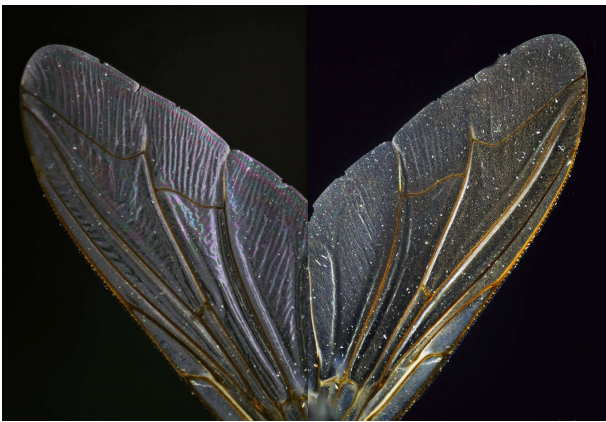
GALLERY



Microfossil, squaliform tooth. Dark field and reflected light.



Coin, grazing and reflected light.



Insect wing, reflected light and dark field.



Ancient jewel with diamonds, reflected light.



Antique platinum ring with diamond, reflected light..



Sapphire, reflected light.